

AMENDMENTS TO THE CLAIMS

This Listing of the Claims will replace all prior versions, and listings of the claims in the application.

Listing of the Claims:

1.-124. (Canceled)

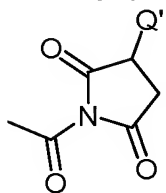
125. (Currently Amended) A pharmaceutical composition comprising a hapten-carrier conjugate, said pharmaceutical composition comprising

at least one hapten which is nicotine or a nicotine derivative; and

at least one carrier which is a pseudomonas exotoxin,

and wherein said hapten and said carrier are linked by a branch selected from the group of chemical moieties identified by CJ reference number consisting of:

CJ 0	Q
CJ 1	(CH ₂) _n Q
CJ 1.1	CO ₂ Q
CJ 2	OCO(CH ₂) _n Q
CJ 2.1	OCOCH=Q
CJ 2.2	OCOCH(O)CH ₂
CJ 2.3	OCO(CH ₂) _n CH(O)CH ₂
CJ 3	CO(CH ₂) _n COQ
CJ 3.1	CO(CH ₂) _n CNQ
CJ 4	OCO(CH ₂) _n COQ
CJ 4.1	OCO(CH ₂) _n CNQ
CJ 5	CH ₂ OCO(CH ₂) _n COQ
CJ 5.1	CH ₂ OCO(CH ₂) _n CNQ
CJ 6	CONH(CH ₂) _n Q
CJ 7	Y(CH ₂) _n Q
CJ 7.1	CH ₂ Y(CH ₂) _n Q
CJ 8	OCOCH(OH)CH ₂ Q
CJ 8.1	OCO(CH ₂) _n CH(OH)CH ₂ Q
CJ 9	OCOC ₆ H ₅
CJ 10	



, wherein Q' is a modified protein; and

CJ 11	<u>YCO(CH₂)_nCOQ[[,]]; and</u>
CJ 11.1	<u>CH₂YCO(CH₂)_nCOQ.</u>

and wherein for each branch, n is independently an integer; Y is S, O, or NH; and Q is selected from the group consisting of:

- (i) —H;
- (ii) —OH;
- (iii) —CH₂;
- (iv) —CH—CH₃;
- ([[iv a]]v) —OCH₃;
- ([[v]]vi) —COOH;
- ([[vi]]vii) a halogen;
- ([[vii]]viii) an activated ester or esters, such as 2-nitro-4-sulfophenyl ester and N-oxysuccinimidyl ester;
- ([[viii]]ix) a group or groups reactive toward the carrier, such as a mixed anhydride, acyl halide, acyl azide, alkyl halide, N-maleimide, imino ester, isocyanate, and isothiocyanate;
- ([[ix]]x) the carrier; and
- ([[x]]xi) another “branch” identified by its “CJ” reference number,

and wherein said hapten-carrier conjugate ~~is capable of eliciting~~ elicits nicotine-specific antibodies ~~an antibody response against nicotine~~ in a human.

126. (Previously Presented) The pharmaceutical composition of claim 125, wherein n is from 3 to 20.

127. (Canceled)

128. (Previously Presented) The pharmaceutical composition of claim 125, wherein greater than one hapten is coupled to the carrier.

129. (Canceled)

130. (Canceled)

131. (Previously Presented) The pharmaceutical composition of claim 125, further comprising a pharmaceutically acceptable excipient.

132. (Presently Amended) The pharmaceutical composition of claim 125, further comprising an adjuvant.

133. (Previously Presented) The pharmaceutical composition of claim 132, wherein the adjuvant is alum or RIBI adjuvant.

134. (Previously Presented) The pharmaceutical composition of claim 133, wherein the adjuvant is alum.

135. (Previously Presented) The pharmaceutical composition of claim 134, wherein the alum is aluminum hydroxide or aluminum phosphate.

136. (Previously Presented) The pharmaceutical composition of claim 125, further comprising an auxiliary agent or supplementary active compound.

137. (Previously Presented) The pharmaceutical composition of claim 125 which is suitable for parenteral administration to a human.

138. (Previously Presented) The pharmaceutical composition of claim 125 which is suitable for oral, dermal or topical administration to a human.

139. (Canceled)

140. (Canceled)

141. (Canceled)

142. (Currently Amended) The pharmaceutical composition of claim 125, further comprising a pharmaceutically acceptable ~~carrier~~excipient.